

## CLAIMS

1. In a distributed network which is registered with a unique domain name,  
said network comprising a number of clients and a number of authentication  
servers, said clients and said authentication servers being communicatively  
5 coupled to each other via a global telecommunication network, each of said  
authentication servers having a fully qualified domain name which is a local  
host name with said unique domain name appended, a distributed  
authentication system, wherein a given user enters a global user identification  
(GUID) and a password for authentication to be carried out at a target  
10 authentication server, said GUID comprising a user name, a delimitation  
symbol, and a domain portion which is same as the local host name of said  
target authentication server, said distributed authentication system  
comprising:

means for parsing an entered GUID and extracting said domain portion  
15 therefrom;

means for appending said unique domain to said domain portion to  
form a fully qualified domain name (formed FQDN);

means for translating said FQDN to an Internet Protocol (IP) address  
representing said target authentication server;

20 means for sending said user name and password to said target  
authentication server for authentication; and

means for distributing and caching an authentication result.

2. The distributed authentication system of Claim 1, further comprising:

means for automatically mapping any unrecognized FQDN into a default server which carries out authentication on the user's authentication request.

3. The distributed authentication system of Claim 1, wherein said means for translating consults a domain name system (DNS) to obtain an Internet Protocol (IP) address representing said target authentication server.

4. The distributed authentication system of Claim 1, wherein said means for translating consults a local mapping list to obtain an Internet Protocol (IP) address representing said target authentication server.

5. A method for providing distributed authentication service, wherein a given user enters a global user identification (GUID) and a password for authentication to be carried out at a target authentication server, said GUID comprising a user name, a delimitation symbol, and a domain portion which is same as the local host name of said target authentication server, said method comprising the computer-implemented steps of:

entering the user's GUID and password;

parsing said entered GUID and extracting said domain portion from

said GUID;

appending a unique domain name to said domain portion to form a fully qualified domain name (FQDN);

looking up said FQDN in a domain name system (DNS) to obtain an address representing said target authentication server;

5 sending said user name and password to said target authentication server for authentication; and

distributing and caching an authentication result.

6. The method of Claim 5, further comprising the steps of:

10 if said step of looking up fails, automatically mapping an unrecognized FQDN into a default server which performs authentication on the user's authentication request.

7. In a distributed network which is registered with a unique domain name, said network comprising a number of clients and a number of authentication servers, said clients and said authentication servers being communicatively  
15 coupled to each other via a global telecommunications network, each of said authentication servers having a fully qualified domain name which is a local host name with said unique domain name appended, a method for providing distributed authentication service, wherein a given user enters a global user identification (GUID) and a password for authentication to be carried out at a  
20 target authentication server, said GUID comprising a user name, a

delimitation symbol and a domain portion which is same as the local host name of said target authentication server, said method comprising the steps of:

entering the user's GUID and password;

5 parsing entered GUID and extracting said domain portion from said GUID;

appending said unique domain name to said domain portion to form a fully qualified domain name (FQDN);

checking a local list of registered fully qualified domain names (FQDN)  
10 to obtain an Internet Protocol (IP) address for said target authentication server, wherein each FQDN in said local list is mapped to a unique IP address;

sending said user name and password to said target authentication server for authentication; and

15 distributing and caching an authentication result.

8. The method of Claim 7, further comprising the step of:

if said step of checking fails, automatically mapping an unrecognized FQDN into a default server which performs authentication on the user's authentication request.

9. In a distributed network which is registered with a unique domain name,  
said network comprising a number of clients and a number of authentication  
servers, said clients and said authentication servers being communicatively  
coupled to each other via a global telecommunications network, each of said  
5 authentication servers having a fully qualified domain name which is a local  
host name with said unique domain name appended, a method for providing  
distributed authentication service, wherein a given user enters a global user  
identification (GUID) and a password for authentication to be carried out at a  
target authentication server, said GUID comprising a user name, a  
10 delimitation symbol and a domain portion which is same as the local host  
name of said target authentication server, said method comprising the  
computer-implemented steps of:

entering the user's GUID and password;

parsing said GUID and extracting said domain portion;

15 appending said unique domain name to said domain portion to form a  
fully qualified domain name (FQDN) in said unique domain;

checking a local list of registered fully qualified domain names  
(RFQDN) to obtain an Internet Protocol (IP) address for said target  
authentication server, wherein each RFQDN in said local list is mapped to a  
20 unique IP address;

if said step of checking fails, looking up a domain name system (DNS) to obtain an Internet Protocol (IP) address representing said FQDN;

sending said user name and password to said target authentication server for authentication; and

5 distributing and caching an authentication result.

10. The method of Claim 9, further comprising the step of:

if said step of looking up fails, automatically mapping an unrecognized FQDN into a default server which performs authentication on the user's authentication request.

10 11. A method for providing distributed authentication service, wherein a given user enters a global user identification (GUID) and a password for authentication to be carried out at a target authentication server, said GUID comprising a user name, a delimitation symbol and said target authentication server's domain name, said method comprising the steps of:

15 entering the user's GUID and password;

parsing said entered GUID and extracting said target authentication server's domain name;

pre-pending said common local host name to said target authentication server's domain name to form a fully qualified domain name (FQDN);

checking a local list of registered fully qualified domain names (RFQDN) to obtain an address for said target authentication server, wherein each RFQDN in said local is mapped to a unique address;

5 sending said user name and password to said target authentication server for authentication; and

distributing and caching an authentication result.

12. The method of Claim 11, further comprising the step of:

10 if said step of checking fails, looking up said FQDN in a domain name system (DNS) to obtain an address representing said target authentication server.

13. The method of Claim 12, further comprising the steps of:

if said step of looking up fails, automatically mapping an unrecognized FQDN into a default server which performs authentication on the user's authentication request.

15 14. In a distributed network comprising a number of clients and a number of authentication servers, said clients and said authentication servers being communicatively coupled to each other via a global telecommunications network, each of said authentication servers having a fully qualified domain name which is a local host name with its domain name appended, a method  
20 for providing distributed authentication service, wherein a given user enters a

global user identification (GUID) and a password for authentication to be carried out at a target authentication server, said GUID comprising a user name, a delimitation symbol and said target authentication server's domain name, said method comprising the steps of:

5           entering the user's GUID and password;

          parsing said entered GUID and extracting said target authentication server's domain name;

          checking a local list of domain names to obtain an Internet Protocol (IP) address for said target authentication server, wherein each domain name in

10       said list is mapped to a registered authentication server's IP address;

          sending said user name and password to said target authentication server for authentication;

          distributing and caching an authentication result.

15. The method of Claim 14, further comprising the step of:

15       if said step of checking fails, automatically mapping an unrecognized domain name into a default server which performs authentication on the user's authentication request.